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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,524	04/01/2004	Hubert Schalk	4100-339	9895

27799 7590 02/12/2007  
COHEN, PONTANI, LIEBERMAN & PAVANE  
551 FIFTH AVENUE  
SUITE 1210  
NEW YORK, NY 10176

EXAMINER
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DESAI, HEMANT

ART UNIT	PAPER NUMBER
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3721

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/12/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/816,524

Applicant(s)

SCHALK, HUBERT

Examiner

Hemant M. Desai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,5 and 8-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5 and 8-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/24/2006 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "said at least one further pair of bearings" in line 18.

There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-2, 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt (1471755) in view of Turner (4811688).

Schmidt discloses a folding device comprising a folding drum (7, figs. 3-4) comprising two opposing side walls (7, fig. 4) and a carrier (undesigned, see figs. 3-4) connected to the folding drum at a location between the side walls, the carrier has a small material thickness in a longitudinal direction of the folding device and a large area extending approximately over the entire cross section of an interior of the folding drum in a transverse direction of the folding device (note cross-section extending diametrically in order to carry 5 shafts), a folding-blade shaft (35, figs. 2-4) having two ends, each of the two ends of the folding-blade shaft being rotatably mounted in a respective one of the sides walls in the folding drum, the folding-blade shaft having at least two folding-blade carriers (see fig. 4) for holding folding blades (15, figs. 2-4), a pair of bearings arranged in the side walls of the folding drum (see fig. 4), the ends of the folding-blade shaft (35) being mounted respectively in the side walls by the pair of bearings, at least one further bearing (see fig. 4) arranged in the carrier, wherein the folding-blade shaft is further rotatably supported in the carrier by the at least one further bearing between the ends of the folding-blade shaft.

Schmidt, as mentioned above, meets all the limitations except the bearings are self-aligning roller bearings. Turner teaches that it known to support shaft (roller 30, fig. 1) in self-aligning roller bearings. It would have been obvious to one having ordinary skill in the art at the time the invention was made to support the folding blade shaft of

Worthington et al. in the self-aligning roller bearings, as taught by Turner, since Turner states at col. 2, lines 48- 51 that such a modification would reduce friction to a minimum.

Regarding claim 2, Schmidt discloses that the at least one further bearing is arranged between adjacent ones of the at least two folding-blade carriers.

Regarding claim 8, Schmidt, as mentioned above, discloses that the one further bearing being supported on the carrier and the carrier is connected to the drum (see fig. 1). Worthington et al. do not disclose expressly that the carrier is connected to the drum by threaded connection. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide threaded connection since it was known in the art that provide threaded connection to connect two parts.

Regarding claim 9, Schmidt, as mentioned above, discloses that the two folding blades (15) spaced apart from one other (see fig. 4). Schmidt does not disclose expressly that the folding blades are spaced apart from one another by a distance smaller than 10 millimeters. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to space the folding blades apart by 10 millimeters because Applicant has not disclosed that by providing 10 millimeters of space between two folding blades provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the folding blade spaced apart as taught by Schmidt or the claimed folding blades spaced apart 10 millimeters because both folding blades with spacing of 10 millimeters or the spacing taught by Schmidt performs the same function of creating fold in the

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product. Therefore, It would have been an obvious matter of design choice to modify Schmidt to provide a 10 millimeters spacing in order to creating fold in the product.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt (1471755) and Turner (4811688) as applied to claim 1 above, and further in view of Ryser (6527029).

The folding device of Schmidt as modified by Turner, meets all the limitations of claim 5, except for central lubricating system to supply lubricating medium to the bearings.

However Ryser teaches to provide the central lubrication system (32, fig. 5) to lubricate the bearings (31, fig. 5) of the driving shaft (see col. 3, lines 46- 60). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to having provided the central lubrication system as taught by Ryser in the modified folding device of Schmidt to lubricate the bearings of folding blade shaft.

7. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt (1471755) and Turner (4811688) as applied to claim 1 above, and further in view of Petrzalka et al. (5118214).

The modified folding machine of Schmidt, as mentioned above, disclose all the claimed limitations of claims 10-13, except for the drive pinion (34, fig. 4) is connected to the folding shaft with form-fitting connection. However, Petrzalka et al: Teaches a form-fitting connection by serrated teething (see figs. 1-2) to provide simple design which ensures problem-free transmission of the necessary torque values (see col. 2, lines 30-33) between connecting piece (1, fig. 1) and shaft (7, fig. 1). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was

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made to connect the drive pinion of Worthington et al. to the folding shaft with form-fitting connection as taught by Petrzelka et al. to provide simple design which ensures problem-free transmission of the necessary torque values between drive pinion and the folding blade shaft.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt (1471755).

Regarding claim 8, Schmidt, as mentioned above, discloses that the one further bearing being supported on the carrier and the carrier is connected to the drum (see fig. 1). Worthington et al. do not disclose expressly that the carrier is connected to the drum by threaded connection. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide threaded connection since it was known in the art that provide threaded connection to connect two parts.

9. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt (1471755) in view of Turner (4811688).

Schmidt, as mentioned above, meets all the limitations except the bearings are self-aligning roller bearings. Turner teaches that it known to support shaft (roller 30, fig. 1) in self-aligning roller bearings. It would have been obvious to one having ordinary skill in the art at the time the invention was made to support the folding blade shaft of Worthington et al. in the self-aligning roller bearings, as taught by Turner, since Turner states at col. 2, lines 48- 51 that such a modification would reduce friction to a minimum.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 14-15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Schmidt (1471755).

Schmidt, as mentioned above, discloses all the claimed limitations of claims 14-15 and 17.

***Response to Arguments***

12. Applicant's arguments with respect to claims 1-2, 5, 8-19 has been considered but are moot in view of the new ground(s) of rejection.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hemant M. Desai whose telephone number is (571) 272-4458. The examiner can normally be reached on 6:30 AM-5:00 PM, Mon-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I. Rada can be reached on (571) 272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For



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more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Hemant M. Desai.*

HEMANT M. DESAI  
PRIMARY EXAMINER